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PATENTOCT 05 2006
Attorney Reference Number 7214-69896-01
Application Number 10/516,862Remarks

Claims 1-20 are pending in this application. By this Amendment, claims 1-3, 7, 8 and 18 are amended and claim 19 is cancelled. After entry of this Amendment, claims 1-18 and 20 will remain pending. Reconsideration in view of the above amendments to the claims and the following remarks is respectfully requested.

Amended Claims 1-3, 7, 8 and 18

Claims 2, 3, 7 and 8 have been amended to correct minor grammatical errors. Claims 1 and 18 have been amended as will be described in more detail below.

Cancelled Claim 19

Claim 19 is cancelled without prejudice or disclaimer in view of the amendments to base claim 18. Applicant reserves the right to pursue this claim and other similar claims in separate patent applications.

Objection to Claims 7-9 and 11-17

Applicant appreciates the recognition of allowable subject matter in claims 3-9 and 11-17, and respectfully traverses the objection for at least the following reasons.

Based on the amendments to independent claim 1, which will be described in more detail below, claim 1 is in condition for allowance and the objection of claim 1 should be withdrawn. Accordingly, claims 3-9 and 11-17, which depend, either directly or indirectly, from base claim 1 are also in a condition for allowance. Therefore, Applicant respectfully requests that the objection to claims 3-9 and 11-17 be withdrawn.

Rejection of Claims 18 and 19

Claims 18 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,997,376 ("Block"). Applicant respectfully traverses this rejection.

Independent claim 18 is directed to an adjustable fin system for a watercraft having a hull. The adjustable fin system includes a "fin terminating at one end in a foot" and "a fin lock." As amended, the adjustable fin system also includes a "fin box mountable in the hull of said watercraft." The fin box comprises "a first surface facing generally outwardly away from the hull and a cavity having an opening on the first surface sized to receive the foot of the fin and being larger than the foot in at least

B/M:bjm 10/5/06 582412.doc
PATENT

Attorney Reference Number 7214-69896-01
Application Number 10/516,862

one dimension to allow movement of the foot within the cavity, wherein the first surface extends about a periphery of the opening.” As further amended, the fin includes an overlapping portion “extending about a periphery of the fin adjacent the foot” where the overlapping portion is “sized to extend about the periphery of the opening and overlap at least a portion of the first surface adjacent the entire periphery of the opening when the foot is inserted in the cavity.” The overlapping portion “restrict[s] entry of water through the opening.”

Block does not teach or disclose each and every feature of independent claim 18. More specifically, the surfboard fin mounting system of Block does not teach or disclose a fin having an overlapping portion that (1) extends about a periphery of the fin adjacent a foot of the fin and (2) is sized to extend about a periphery of an opening in a fin box and overlap at least a portion of the a first surface adjacent the entire periphery of the opening.

Rather, as shown in Figure 5, the sides of the mounting end 70 of the fin 28, i.e., the portion of the fin within the box 52, are flush with the sides of the fin. In other words, a portion of the periphery adjacent the mounting end 70 of the fin 28, i.e., the sides of the fin, does not extend laterally beyond the opening of the box 52. Nevertheless, the Examiner contends that the fin 16 has a surface that extends beyond the box opening. The surface referred to by the Examiner is, if anything, only a portion of the periphery of the fin, e.g., a leading edge portion and a trailing edge portion, that extends beyond the box opening and not an overlapping portion extending about the entire periphery of the fin as claimed.

Further, the fin of Block does not overlap the opening of the box “thereby restricting entry of water through the opening” as recited in claim 18. More specifically, since only a portion of the periphery of the fin of Block extends beyond the box opening, as shown in Figure 1, a portion of the opening of the box 52 would be exposed to water flow during use of the board. Exposing the opening to water flow can create turbulence around the opening, induce drag forces that can slow down the board, and prevent a desirable smooth laminar fluid flow about the fin. See Application, page 9, paragraph 32.

Based on the above, Block fails to teach or disclose an overlapping portion extending about a periphery of the fin that overlaps a surface of the fin box adjacent the entire periphery of the fin box opening and an overlapping portion that restricts entry of water through the opening as recited in claim 18. Accordingly, Block does not anticipate claim 18. Therefore, withdrawal of the rejection as to claim 18 is respectfully requested.

Claim 20, being dependent upon base claim 18, is allowable for at least the same reasons as for

BJM:bjm 10/5/06 582412.doc
PATENT

Attorney Reference Number 7214-69896-01
Application Number 10/516,862

claim 18, as well as for the respective additional features recited therein. Accordingly, withdrawal of the rejection as to claim 20 is respectfully requested.

Rejection of Claims 1, 2, 10 and 18-20

Claims 1, 2, 10 and 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,421,492 ("Leva") in view of Block. This rejection is respectfully traversed.

Claims 1, 2 and 10

Independent claim 1 recites an adjustable fin system for a watercraft having a hull. The system includes a fin having a base, a foot coupled to the base, a fin box having a top wall, a bottom wall generally opposite the top wall and side walls, and an opening on a first surface of the top wall, and a manually operable detent mechanism. As amended, the foot includes "a first portion extending from said base and a second portion extending from said first portion." The second portion is "spaced apart from said base such that a fin box receiving area is defined between the second portion of the foot and the base." Claim 1 is further amended to recite that "when said fin is in any of the plurality of different pin positions, said base substantially covers said opening and at least a portion of the top wall is positioned between the base and second portion of the foot within the fin box receiving area."

In certain implementations, the adjustable fin system of claim 1 can provide certain advantages. For example, the spatial relationship between the fin box receiving area and the top wall of the fin box can facilitate the substantial covering of the fin box opening when the fin is placed in any of the plurality of different pin positions. Substantially covering the opening of the fin box with the base can promote a reduction of, and in some cases, virtually eliminate, "drag, turbulence, or adverse hydrodynamic effects otherwise caused by water flowing into the opening." Application, page 9, paragraph 32.

Also, in some implementations, the detent mechanism is configured such that the forces imposed on the fin by water flowing over the fin during use act to reinforce the locking action of the detent mechanism rather than weaken it as can occur with conventional fin systems. Accordingly, forces acting on the fin by water flowing over the fin during use do not cause unintentional adjustment of the fin position, such as when the detent mechanism wears over time.

Leva does not teach or suggest a fin system having a fin box that includes a top wall, a bottom wall generally opposite the top wall and side walls intermediate the top and bottom walls. Moreover, Leva does not teach or suggest a fin having a foot that defines a fin box receiving area that receives a

BJM:bjm 10/5/06 582412.doc
PATENTAttorney Reference Number 7214-69896-01
Application Number 10/516,862

top wall of the fin box when a foot of the fin is received in a cavity of the fin box. Also, as recognized by the Examiner, Leva fails to disclose or suggest an overlapping relationship between the fin and the fin box. Additionally, Leva fails to teach or suggest the advantageous stemming from the claimed combination of features recited in claim 1. For example, the force required to adjust the adjustable fin system of Leva is in the same general direction as the forces acting on the fin by water flowing over the fin during use. Accordingly, in the event the spring mechanism of the system of Leva becomes less resilient over time, the hydrodynamic forces acting on the fin during normal use of the board can cause the fin to inadvertently move, e.g., slide toward the rear of the box, thus affecting the performance of the fin.

Block fails to overcome the deficiencies of Leva. More specifically, Block fails to teach or suggest the fin box, the fin box receiving area, and substantially covering the opening of the fin box with the base as claimed. Moreover, Block fails to teach or suggest the advantages associated with the claimed combination of features recited in claim 1.

Referring to Figure 2 of Block, the box 40 does not have a top wall, a bottom wall generally opposite the top wall and side walls intermediate the top and bottom walls. Moreover, the fin 16 of Block does not include a foot with a second portion spaced apart from the base to form a fin box receiving area that receives a top wall of the box. Also, as shown in Figure 1 of Block, at least portions of the fin box opening (i.e., the rearward portion of the fin box openings) are not covered by the fin and would be exposed to water when in use. Exposing the fin box openings to water would likely allow water to flow into the opening and create undesirable drag, turbulence or other adverse hydrodynamic effects.

Therefore, even if one were motivated to combine the teachings of Knox with those of Block, which one would not be, the resultant combination would not render obvious the features recited in claim 1. Accordingly, withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2 and 10, being dependent, either directly or indirectly, upon base claim 1 would also not have been obvious in view of Leva and Block for at least the same reasons as for claim 1, as well as the respective additional features recited therein. Accordingly, withdrawal of the rejection as to claims 2 and 10 is respectfully requested.

Claims 18 and 20

As recognized by the Examiner, Leva fails to disclose or suggest an overlapping relationship between the fin and the box.

BJM:bjm 10/5/06 382412.doc
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Block fails to overcome the deficiencies of Leva. For example, as asserted above, Block fails to teach, or even suggest, a fin having an overlapping portion that (1) extends about a periphery of the fin adjacent a foot of the fin and (2) is sized to extend about a periphery of an opening in a fin box and overlap at least a portion of the a first surface adjacent the entire periphery of the opening.

Therefore, even if one were motivated to combine the teachings of Knox with those of Block, which one would not be, the resultant combination would not render obvious the features recited in claim 18.

Claim 20, being dependent upon base claim 18, would also not have been obvious in view of Leva and Block for at least the same reasons as for claim 18, as well as for the respective additional features recited therein. Accordingly, withdrawal of the rejection as to claim 20 is respectfully requested.

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Conclusion**OCT 05 2006**

Based on the foregoing, Applicants respectfully submit that the current claims are drawn to allowable subject matter and that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place this application in better condition for allowance, the Examiner is requested to contact Applicants' representative by telephone.

Respectfully submitted,

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